RECEIVED **CENTRAL FAX CENTER**

NOV 0 1 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Ricky Amos et al.

Examiner:

Matthew C. Landau

Serial No.:

09/995,031

Art Unit:

2815

Filed:

Herewith

Docket:

YOR920010633US1 (19031)

For: HIGH TEMPERATURE PROCESSING

Dated:

November 1, 2005

COMPATIBLE METAL GATE

ELECTRODE FOR pFETs AND METHOD

FOR FABRICATION

Confirmation No. 9669

Mail Stop AF Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

SUBMISSION OF EXECUTED DECLARATION PURSUANT TO 37 C.F.R. § 1.131

Sir:

In applicants' Response dated October 18, 2004, an unexecuted 131 Declaration was filed. Attached herewith is a copy of the executed 131 Declaration. The executed 131 Declaration submitted herein does not include Exhibits A and B which were previously submitted. Applicants hereby submit that the previously submitted Exhibits A and B are applicable here for the executed Declaration and thus respectfully request the Examiner substitute the Exhibits from the previous version for the executed copy attached herewith.

Respectifully submitted,

Leslie S. Szivos, Ph.D. Registration No. 39,394

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this document is being filed in the United States Patent and Trademark Office on the date shown below via facsimile transmission to Mail Stop Amendment, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 at United States Patent and Trademark Office facsimile transmission number (571) 273-8300.

Dated: November 1, 2005

Leslie S. Szivos, Ph.D.

G:\lbm\105\19031\Misc\Dec2HEREWITH.doc

RECEIVED CENTRAL FAX CENTER

NOV 0 1 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Ricky Amos, et al.

Examiner: Matthew C. Landau

Serial No:

09/995,031

Art Unit: 2815

Filed:

November 29, 2001

Docket: YOR920010633US1 (19031)

For: HIGH TEMPERATURE PROCESSING

Dated: October 18, 2005

COMPATIBLE METAL GATE ELECTRODE FOR pFETs AND METHOD FOR FABRICATION

Confirmation No: 9669

Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

DECLARATION PURSUANT TO 37 C.F.R. §1.131

Sir:

We, Ricky Amos, Douglas A. Buchanan, Cyril Cabral, Jr., Alessandro C. Callegari, Supratik Guha, Hyungjun Kim, Fenton R. McFeely, Vijay Narayanan, Kenneth Rodbell, and John J. Yurkas, hereby declare that:

- 1. We are co-inventors of the subject matter described and claimed in the above-identified patent application.
- 2. Prior to August 10, 2001, which is the effective filing date of U.S. Patent No. 6,541,320 to Brown, et al. ("Brown, et al."), we have conceived and reduced to practice a semiconductor structure such as, a metal oxide semiconductor (MOS) or a field effect transistor (FET), that includes a semiconductor substrate having source and drain regions, a gate dielectric having a thickness of less than 100 Å on the semiconductor substrate; and a

gate formed of a metal comprising Re on top of the gate dielectric, as is recited in Claims 1 and 10 of the present application.

- 3. As evidence of the conception and reduction to practice of the claimed semiconductor structure referred to in paragraph 2 prior to the effective filing date of Brown, et al., annexed hereto are Exhibits A and B. Exhibit A is a true photocopy of IBM Invention Disclosure YOR820010675, which was created prior to August 10, 2001. Exhibit A includes a Main Ideal section for the Invention Disclosure that describes the fabrication of a semiconductor structure such as a MOS or FET that includes Re as the gate electrode. Exhibit B is the inventors' write-up of the Disclosure that was also created prior to the effective filing date of Brown, et al. This write-up provides greater detail of the invention presently claimed including experimental data that establishes clear evidence of actual fabrication of the claimed semiconductor structure. All names and dates have been redacted in the preparation of this Declaration.
- 4. We do hereby declare that all statements made herein of our own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements may jeopardize the validity or enforceability of the patent.

10/18/2005 Dated	Ricky Amos	
Dated	Douglas A. Buchanan	
Dated	Cyril Cabral, Jr.	

gate formed of a metal comprising Re on top of the gate dielectric, as is recited in Claims 1 and 10 of the present application.

- 3. As evidence of the conception and reduction to practice of the claimed semiconductor structure referred to in paragraph 2 prior to the effective filing date of Brown, et al., annexed hereto are Exhibits A and B. Exhibit A is a true photocopy of IBM Invention Disclosure YOR820010675, which was created prior to August 10, 2001. Exhibit A includes a Main Ideal section for the Invention Disclosure that describes the fabrication of a semiconductor structure such as a MOS or FET that includes Re as the gate electrode. Exhibit B is the inventors' write-up of the Disclosure that was also created prior to the effective filing date of Brown, et al. This write-up provides greater detail of the invention presently claimed including experimental data that establishes clear evidence of actual fabrication of the claimed semiconductor structure. All names and dates have been redacted in the preparation of this Declaration.
- 4. We do hereby declare that all statements made herein of our own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements may jeopardize the validity or enforceability of the patent.

Dated	Ricky Amos	
Dot19, 2005	Douglas A. Buchanan	
Dated	Douglas A. Buchanan	
Dated	Cyril Cabral, Jr.	

gate formed of a metal comprising Re on top of the gate dielectric, as is recited in Claims 1 and 10 of the present application.

- 3. As evidence of the conception and reduction to practice of the claimed semiconductor structure referred to in paragraph 2 prior to the effective filing date of Brown, et al., annexed hereto are Exhibits A and B. Exhibit A is a true photocopy of IBM Invention Disclosure YOR820010675, which was created prior to August 10, 2001. Exhibit A includes a Main Ideal section for the Invention Disclosure that describes the fabrication of a semiconductor structure such as a MOS or FET that includes Re as the gate electrode. Exhibit B is the inventors' write-up of the Disclosure that was also created prior to the effective filing date of Brown, et al. This write-up provides greater detail of the invention presently claimed including experimental data that establishes clear evidence of actual fabrication of the claimed semiconductor structure. All names and dates have been reducted in the preparation of this Declaration.
- 4. We do hereby declare that all statements made herein of our own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements may jeopardize the validity or enforceability of the patent.

Dated	Ricky Amos	
Dated	Douglas A. Buchanan	
10/13/05— Dated	Cyrl)Cabral, Jr.	

13 001. 2005	Alend C
Dated	Alessandro C.
· ·	
Dated	Supratik Guha
140ch. 2005	Sapra
Dated	Hyungjun Kim
13 Oct. 2005	JtR
Dated	Fenton R. McF
13th October 2005.	May 1
Dated	Vijay Wardyana
13th October, 2005	<u>k</u>
Dated	Kenneth P. Rod
13TH OCT 2005	John y
Dated	John J. Jurieas
	U

Dated	Alessandro C. Callegari
	, modulate of carages
Dated	Supratik Guha
10/11/05	Jake X
Dated	Hyungjun Kim
Dated	Fenton R. McFeely
Dated	Vijay Narayanan
Dated	Kenneth P. Rodbell
Dated	John J. Yurkas